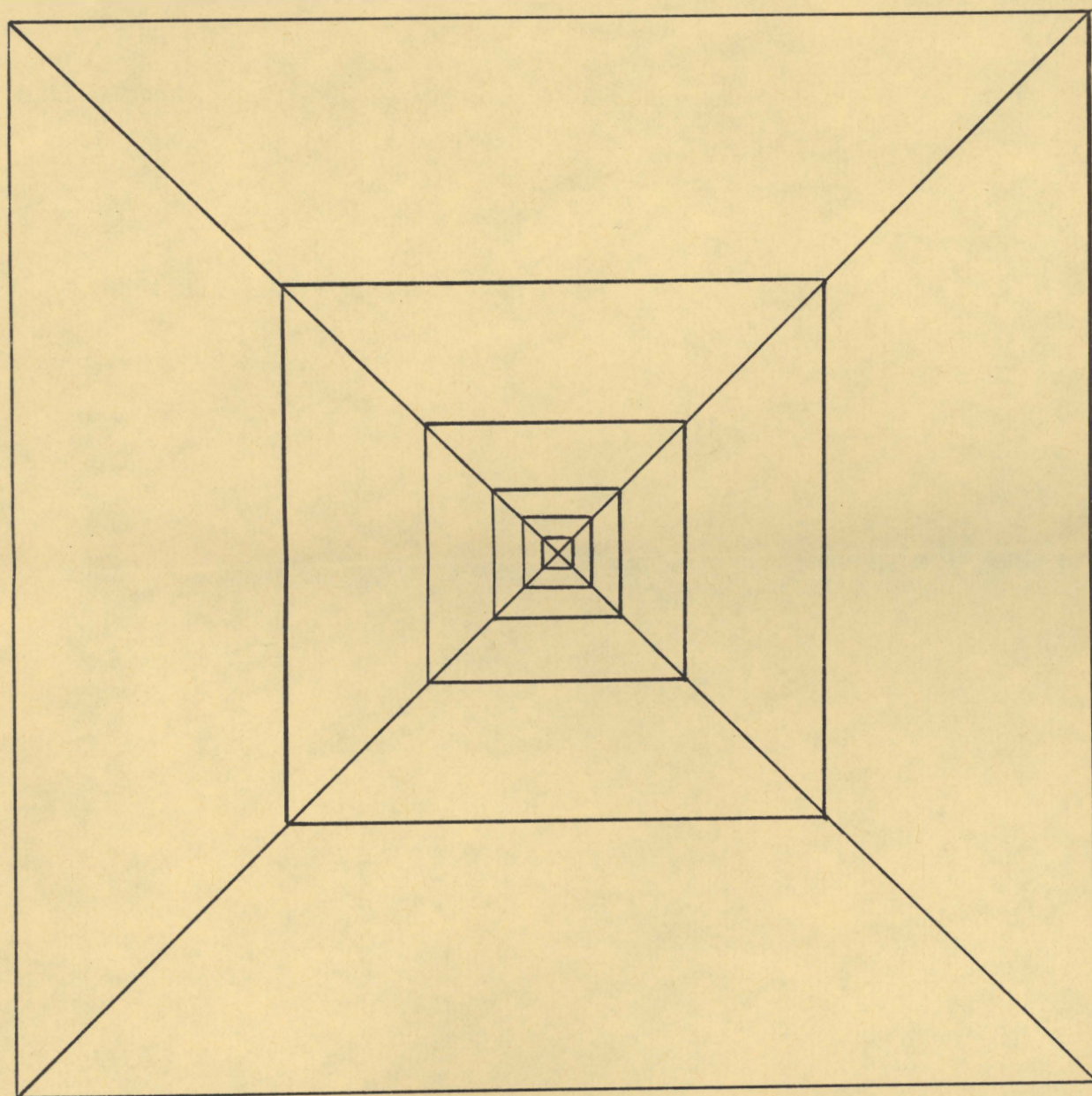


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Editorial

by H. Griesberg & K. Basterfield

It is becoming increasingly difficult for any one individual to keep up with the blossoming amount of information now available in the UFO research field. Ways around this for the most part must centre around information distribution or sharing in one form or another. One sharing scheme which has been working very successfully now for several months has been a parcel system among ten or so researchers scattered throughout the country. Copies of interesting items are circulated from one to another, with photocopies being taken if anyone wishes to keep a permanent record of any item. Round trip time is about 2½ to 3 months, with the parcel remaining in constant circulation with new items being added all the time.

The circulation of lists of files, documents, books and magazines held by an individual helps others to locate information which they may need.

As we mentioned last issue copies of any reports on file with ACUFOS are available at a nominal service fee, and the Centre has several publications for the interested researcher. The bibliography service by John Prytz also assists in locating articles of note. All of these ensure circulation of material to the interested researcher.

Another service ACUFOS initiated in January 1981 was in the form of the ACUFOS BULLETIN, a two page selection of recent news and events. This publication is currently ONLY available to ACUFOS investigators and scientific consultants, and is intended for short reports/ items which will be followed up in more depth in the Journal.

Are there any other sources of information we have? One which hasn't been mentioned for a while is the ACUFOS Computer file run by Andy Cole of Sydney. Andy informs us that there are now about 650 Australian Cases on file. If you are interested in copies of printouts please contact the Centre.

Is there anything else we can do to share and circulate information? One suggestion which has been made which we'd like to receive comments on is that of a newspaper/press clip service similar to those run by overseas sources. If sufficient press clippings were available it may be possible to commence a copy service circulating Australian newspaper/magazine articles to researchers, say on a monthly basis. Comments please.

A central library of cassette/tape recordings has been mooted on several occasions but has never gathered enough momentum. A few individuals have circulated lists of their own tapes but it would be very handy to have a central library. Well, that's what has been done and what could be done. Over to you.

On another note, one year ago, the Centre launched the new Journal, a publications service, a research fund and promised to promote U.F.O. research in general within Australia. Quite a deal has been achieved in that year. Now in 1981 after consultation with member organisations of the Centre and individuals we announce the initiation of an ACUFOS investigation network to supplement the fine work being done by member groups. Of special interest will be the Northern Territory and Victoria where no ACUFOS member group exists. If you are a reader in these two states and would like to submit an application to become an investigator for the Centre please drop us a line enclosing a s.a.e. to P.O. Box 546 Gosford NSW 2250. Also we are interested in country areas throughout Australia. In this manner we hope to be able to increase the information we bring to you.

Demand for Centre publications has been constant. Presently available are:-

- ACUFOS D1 Round up of 1978 statistics and case summaries.
- D2 Observations by aircrew.
- D3 Indepth study of entity reports
- D4 Round up of cases summaries and statistics 1979.
- D5 Anthropoid/UFO catalogue
- D6 Proceedings of UFOCON 5, Canberra 1980.

Currently in production are D7 - In Soarch of A Subject: An Australian SETI Programme, and D8 - Information Storage and Retrieval For Ufologists, both these documents authored by well known ACUFOS identity John Prytz. Forthcoming productions should include a review of Australian Physical Trace Cases, and a Photographic case catalogue.

UFO reports in Australia last year were extremely scarce. TUFOIC reports that in Tasmania it was one of the quietest years on record, possibly since the 1960's. That comment is reflected overseas in correspondence which revealed a similar trend for the year.

Lull periods and "flaps" periods perhaps offer one reason to believe that the phenomena is not generated by people, i.e. it is external to the human mind. If it was person generated there should be no ups and downs but a constant flow of reports.

Let's hope that 1981 brings us something better to persue.

IN MEMORIUM - MATTHEW CHARLES DICK, 1950-1980.

It is with much sadness that I have to report the passing of one of the staff members of UFO Research (NSW). While the manner of his passing was particularly saddening, I will only concern myself here with recording, in part, Matthew's contribution to the UFO subject.

He had broad interests, including Australian flora & fauna, biology, botany and photography. I first met Matthew during 1975, when he reported to UFOR (NSW) his observations of nocturnal lights over Heron Island, Queensland, made in December 1973. His interest led him to join the group and in his 5 year association with us, made many important contributions in the areas of investigation, research & group participation.

In the May-June 1979 issue of "COSMOS" magazine, Matthew published his thoughts on the "origins of UFOs", in a 2 part article, entitled "ORIGINS OF UFOS - A

SURVEY OF POSSIBILITIES".

I quote from the article's conclusions:

"The literature on which this article is based represents only a tiny fraction of the vast amount that has been published in the last thirty years, and for each theory that has been put forward on the origin of UFOs, there is far more evidence than has been presented here. None of it is conclusive in any sense of the word, and much of it lends support to several hypotheses at once. An all-too-common mistake of human kind is to decide that one hypothesis automatically excludes all others, when in fact Nature herself is often more tolerant in allowing different processes to achieve much the same results. It is possible that all the ideas covered in this article contain some degree of truth; I feel it is a virtual certainty that not just one, but more than one, will ultimately be proven correct."

Although Matthew had a deep interest in UFO propulsion theories, I saw his main contribution in defining nature's contribution to phenomena that could be misinterpreted as evidence for UFO landing traces. His academic background (B.Sc. Hons and a PhD student in Zoology) was reflected in the quality of valuable contributions he made to this area. His major paper, "Some Biological Explanations for UFO Trace Cases and Related Phenomena" appeared in 1979 and in a revised form late in 1980. In fact, Matthew sent me a copy of his paper during December 1980 and I had spoken to him about it a few days before his death.

It is both ironic and fitting that the JOURNAL of the AUSTRALIAN CENTRE FOR UFO STUDIES published the first part of his last contribution "Some Biological Explanations....." (the 1980 revised edition) in its December 1980 issue (before news of Matthews death was known).

This issue, carries the final part of this important research contribution. Matthew will be surely missed.

Our collective sympathy is extended to Matthews family, which noted his passing in the following manner:

"DICK, Matthew Charles -
December 20, 1980, at his
residence, Annandale, dearly
loved son of Merle and
Keith and loved brother of
Paul.
Aged 30 years.
Privately cremated December 24, 1980."

Bill Chalker - Director UFO Research (NSU)

Some Biological Explanations for UFO Trace Cases and Related Phenomena.

(Part 2)

by Matthew C. Dick.

4. Bioluminescence.

A great variety of living organisms produce a 'cold light' by chemical processes, with the greatest development occurring in marine species. Its function is not known where it appears in bacteria, algae, fungi and many other groups, but in some animals it may serve as a predator-confusion device, a 'lure' for prey, a grouping signal or a sex attraction. In addition to the organisms mentioned above, bioluminescence is found in protozoa, tunicates, jellyfish, comb jellies, hydroids, sea pens, worms, molluscs, crustaceans, fish and insects.

(a) Marine Organisms.

Some planktonic plants and animals occur in vast numbers over large areas, either causing the sea to glow with an eerie light or perhaps only luminescing when stimulated by turbulence from waves, propellers or the passage of large objects through the water. Dinoflagellates (algae) and ostracods (crustaceans) are usually responsible for such displays, which are most often seen in tropical seas (Zahl, 1971).

Fish, shrimps, squid and some worms may either be solitary or form large aggregations for breeding on one or two nights a year, depending on specific stages of the lunar cycle or calendar dates to trigger this behaviour. Such a group could be easily mistaken for a strange underwater object, and would appear all the more unusual if it moved, changed shape or split into parts. At least one fish from Indian Ocean waters Photoblepharon, has the ability to shield its light-producing organs and thereby 'blink out'. It forms large, loose schools which produce a glow visible from the surface, although there is no coordination of light emissions amongst the members of the school. Much research still remains to be done in this field, and it is quite possible that luminous sea life could account for some reports of glowing USOs. On the other hand, there is no doubt that a large object moving underwater could stimulate bioluminescent plankton. To an observer, the light itself might be the mystery, whereas the real mystery would be the nature of the object. There is also a strong possibility that light emissions from plankton could be stimulated by certain frequencies of sound or electromagnetic radiation. An interesting discussion of bioluminescence in relation to USOs may be found in Sanderson, pp97-114.

(b) Fungi.

Most of the luminous fungi belong to the Order Agaricales i.e. the mushrooms and toadstools. In North America, genera, with luminous species include Armillaria, Clitocybe, Mycena, Omphalina, Panus and Pleurotus (Stevens, pp458-461). All of these genera occur in Australia, and are found on or near rotting wood (Cole et al), although the luminous properties of Australian fungi seem to have been neglected in the literature. Exceptions to this are Pleurotus lampas and P. nidiformis which form clumps of cream coloured, asymmetrical 'mushrooms' on dead Eucalyptus trunks or logs. The mycelium, fruiting bodies and spores of the former species all glow with a pale greenish-white light (Lamberton), while Cole et al simply note that the latter is luminescent.

In UFO cases involving luminescence of nearby objects, samples should be examined under a microscope for luminous mycelium. Exposure to ultraviolet enhances the effect (Stevens), and can cause normally non-luminous organisms to fluoresce as well.

(c) Bacteria.

Luminous bacteria of the species Photobacterium phosphoreum live on the skin of most marine fish, but under normal circumstances are not present in sufficient numbers to cause the fish to glow. If seafood or meat infected with the bacteria is stored at a temperature favourable to their growth, strong blue-green luminescence may be the result.

There are very few known species of wholly terrestrial luminescent bacteria, and it would be rare for them to produce a noticeable light outside a laboratory culture. One of these lives in an apparently symbiotic relationship with the nematode worm Chromonema. The worm parasitizes caterpillars, but is not known to cause them to glow (Reichelt, pers. comm.)

(d) Insects.

The fireflies are beetles (Order Coleoptera) of the Families Elateridae and Lampyridae; in Australia, only the latter family has luminous members. Eggs, larvae and pupae of these beetles are faintly luminous; in the adults the light is much brighter, is restricted to one or two abdominal segments, and is emitted in brief flashes. Its function is assumed to be a sexual signal. Larvae are carnivorous and feed mainly on snails, but the adults do not feed at all. Males of the Australian species fly in damp forests on dark, calm evenings, emitting flashes at about one second intervals. Unlike some tropical species, they do not form impressive aggregations with synchronized light emissions. Although the

females are winged, they are not known to fly. The Australian fireflies belong to the genera Luciola and Atypheila, and are mainly tropical in distribution, but A. lychnus occurs as far south as the Blue Mountains near Sydney (CSIRO, 1970 McAlpine, pers. comm.).

Glow-worms are the larvae of small flies of the Family Mycetophilidae, and belong to the genus Arachnocampa. Although the larvae of other members of the family feed mainly on fungi (and are thus called fungus gnats), Arachnocampa larvae are carnivorous. They spin transparent tubes attached to cave roofs or other dark sheltered places, and suspend sticky threads from the mouth of the tube. Flying insects are attracted to the pale-green glow of the larvae and are caught on the threads which are then drawn up for the prey to be consumed. The light emitted by glow-worms is constant, unlike the flash of fireflies, but they can extinguish their lights if disturbed. Adult females are unable to fly, but take up elevated positions where they emit a strong yellow light to attract the flying males; the latter have only two faint lights at the end of the abdomen (Richards, 1963)

'Ghost lights' are a so far unexplained phenomenon recorded throughout Australia, although they generally seem to remain within a few metres of the ground. Despite a few cases of people being chased or followed by them, most seem to keep their distance or disappear if approached (Cusack, 1967). Their cause has long been a mystery, but a Mr. Allan Camm intentionally drove his grader into the midst of one such light which had been following him near Boulia, Queensland, and found it to consist of a swarm of luminous 'glow-worms' (Oram, 1975). As glow-worms, other insect larvae and true worms are all wingless, it is virtually certain that some type of winged insect was involved. Some small flies do congregate in dense swarms a few metres above the ground near swamps, moving around in an unpredictable fashion similar to some of the 'ghost lights', and given the above case, could well account for some of the reports. However, the diversity of details from other cases implies that this may be a valid explanation for only some of the reports.

(e) Other glows.

A few reports have included reference to glowing material left on the ground or nearby trees after the departure of UFOs. One such case occurred in Greenberg, Pennsylvania in October 1973. After a dome-shaped luminous object about 30m in diameter hovered over a field, a white glowing ring remained on the ground for over 20 minutes, although later examination of the area in daylight revealed no obvious physical traces (Schwartz, 1977). In 1971 a 3m diameter luminous 'mushroom-shaped' (!) object was seen hovering close to the ground near Delphos Kansas. It also left a glowing ring on the ground, and a similar luminous effect on parts of nearby trees. Soil from the ring was water-repellent, would not support plant growth, and when analyzed was found to have a higher concentration of calcium, magnesium and phosphorus than control samples. A white fibrous substance in the soil proved to be mycelium of the fungus Nocardia (family Ascomycetaceae); although it is often associated with Basidiomycetes, some of which can fluoresce, none of the latter fungi were present in the sample (Hendry, pp35-37). As suggested previously, the abundance of soil fungi from landing sites was very likely a later response to decaying material from plants or soil fauna killed by electromagnetic radiation; it hardly seems possible that it was 'planted' there by the UFO. Certainly, the time between the event and collection of the sample (32 days) would be adequate for fungi to invade sterilized soil.

One possible explanation for these and similar cases may be the fluorescence of some minerals and agricultural chemicals under ultraviolet. Spinel, zircon, monazite, scheelite, fluorite, gypsum and calcite fluoresce although of these only the latter two are sufficiently common and widespread to be possible candidates. Most organochlorine, -phosphate and -carbamate insecticides are fluorescent under UV, although most of the organophosphates and carbamates persist for only a few days after application. However, light emissions from most of these minerals and chemicals are of characteristic spectral colours rather than white, and they would not continue to glow after the UV stimulation had ceased.

Flourescent effects were mentioned in a report from near Gisborne, New Zealand in November 1977. From about 60m away a 'bowler hat-shaped' object about 12m in diameter was seen to beam a blue light onto a dead tree trunk for about 7 seconds. During this time each branch flouresced in different colours e.g. pink, orange and violet (Dickinson, 1978). Many lichens (dual organisms consisting of algae living in fungi) flouresce under UV, the emitted colours including pale blue and greenish-white (Martin and Child, p38) or orange (Pogson, pers. comm.)

Unlike the rings on the ground in the previous two cases, the glow only lasted while a radiation source was present. The 'lichen hypothesis' is supported by the fact that UV is produced most abundantly by broad-band emissions at the blue end of the spectrum, that flourescence under UV does not persist for long after irradiation, and that dead trees are prime habitat for lichens. However, the nature of the object causing the effect is as much a mystery as before.

5. Airborne Fibres.

Young spiders of many species disperse to new areas by behaviour known as ballooning. They climb onto elevated perches such as grass stems or fences and spin a bunch of separate fine silk threads which catch the breeze and carry the spiderlings distances of upto hundreds of kilometres. Species in about 12 families of Australian spiders do this, including species in the families Araneidae (orb weavers) and Theridiidae. Aerial drags have collected large numbers of Erigone and Bathythantes in the Linythiidae, and Arctosa and Lycosa in the Lycosidae (wolf spiders). Profuse falls of ballooning spiders have been recorded mainly in September and October, during fine warm weather with a light breeze. They have occurred in most parts of Australia, sometimes covering hectares of ground with their webs.

Adult spiders also engage in ballooning when driven out of their habitat by flooding, generally in spring and summer. Before spinning the ballooning silk they may cover large areas with the stronger multi-stranded dragline silk. Wolf spiders are the main ones for which this behaviour has been noted (Gray, 1978 and pers. comm.)

Spider web is a protein known as fibroin; in a flame it burns briefly and melts, forming small globules at the end of the fibres. Under the scanning electron microscope most spider web can be seen to consist of even numbers of continuous fibres adhering together along their length. Ballooning silk differs in that most of the fibres are separate, although they may adhere where they touch.

At least some reports of so-called 'angel hair' falls associated with the passage of UFOs have in fact been due to mass landings of ballooning spiders. Given the transient nature of angel hair, it is likely that analysis of material more than a few hours old (and still existing as fibres) would show it to be spider web, even if the other had been originally present. Field investigators should check any reported falls of 'angel hair' for small spiders, especially as they detach themselves from the ballooning silk soon after landing and may not be the obvious cause. The spiders can be captured in small jars or plastic bags for later identification. As large a sample as possible of fibre should be collected and placed in the smallest suitable airtight container. It would be desirable to store a second sample in a water-filled container to reduce atmospheric degradation. The samples should be stored under refrigerated, dark conditions until analysis, preferably by gas chromatography if the sample evaporates in the container.

Acknowledgements: I would like to thank J. Bruhl for information on Phytophthora; Mike Gray - spiders; David McAlpine - insects; J. Reichelt - luminous bacteria; John Walker - fungi; and R. Pogson - flourescence. Thanks are also due to Bill Chalker and Michael Hough for locating several of the references.

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The 30th September 1980 Rosedale, Victoria Event.

by Keith Basterfield & Bill Chalker.

INTRODUCTION: A very spectacular event is reported to have occurred in the early hours of 30 September 1980 on a property known as "White-Acres", some 8 km from Rosedale, Victoria. Investigations were conducted by a number of people and in view of the apparent magnitude of the event, Bill Chalker, Garry Little and Keith Basterfield investigated on behalf of the Centre. This is a preliminary report of the case and the investigation to date.

THE EVENT AS RELATED: The percipient, Mr. George Blackwell, 54, a farm hand and care-taker of the property, went to bed at 2230 hrs on 29 September and experienced no trouble in sleeping.

At 0100 hrs 30 Sept (daylight saving time) he awoke and immediately noted a noise like a screeching whistle, unlike the noise of anything on the nearby road. It should be noted that the Princes Highway, a main road Melbourne to Sydney, carrying interstate traffic, runs right alongside the house where he lay sleeping.

There were also noises of cattle bellowing and a horse running around in apparent panic. He looked at his bedside spring wound clock after switching on the bedroom light and noted the time. He then went outside the back door still in his night attire, to see what was the matter with the stock. From the back door the view is obstructed by adjacent posts and sheeting, so in order to have a clear view he stood up on a wooden rail just outside the door. Immediately he noted out of the corner of his eye an object moving from his right to left. Its estimated height was 8-10 feet (1) above the ground.

He stood there and watched it, it appeared to pass between a shed and a Cyprus hedge (estimated distance about 500 feet) and then between a silo and a tree. When behind the shed he states that part of the object was below his line of sight of the shed roof.

At first he thought it was an aircraft in distress, but when clearly in view by the silo he noted there were no wings and no tail, and he described it as a domed object with a white top. It had orange and blue lights on its surface and he estimated its diameter at about 26 feet. Its height was given as about 15 feet. The object then progressed over a paddock, passed by a haystack and appeared to rest over a distant open topped concrete 10,000 gallon water tank, for an estimated minute before moving to a stationary position apparently on the ground to the left of the tank as viewed from the house. Total time between initial view and on the ground was put at 2 minutes. He commented that there did not appear to be any illumination of the ground as it passed over, but the object gave out light at its own height.

Mr. Blackwell decided to investigate as there had been reports of rustling of stock in the area, and his stock were obviously disturbed. Going back into the house he dressed. Within five minutes he emerged, got on his red coloured Suzuki 100 bike, started it up and commenced to ride up a lane to the area where the object was still visible on the ground, still making an audible whistling noise. Stopping to open a gate he saw a cow apparently disturbed and frothing at the mouth. This cow came through the open gate and according to Mr. Blackwell, proceeded to hide itself under an adjacent shed. Riding further up to another gate he emerged into the paddock with the object in it.

As he approached it, from about 50 yards away to the place where he stopped 50 feet from it, he commented that he had an unusual body sensation feeling "like a jelly on a plate", everything was trembling. Stopping 50 feet or so from it, he sat on his bike with the engine still going (there were no effects on his bike at all) and headlight on. He rested the bike by placing his two feet on the ground. The object was still sitting on the ground, still making a whistling noise.

Mr. Blackwell maintains he could not go any closer to it due to the intensity of the noise. In fact he says he sat on the bike with his ears covered by his hands. Duration of this portion of the observation is put at about 3 minutes. The object itself seemed to consist of two sections - a white dome on top and a larger orange section underneath. Around this bottom section there appeared to be circular windows or lights. Suddenly, the noise level increased to "an awful scream", something like a black tube appeared around the base of the object, and this seemed to inflate to a tremendous size, just beyond the diameter of the object. There was a tremendous "bang" and a blast of air and heat came from it. This blast almost knocked him off his bike. It lifted up and gradually rolled off the spot going eastwards.

The bike's headlight illuminated the base of the object as it moved away enabling the percipient to observe that the black "tube" seemed to be deflating towards the centre of the base. Also around the rim of the base were six evenly spaced "spokes" or V-shaped things.

At about 30 feet out from where it had sat and at a height of 8-10 feet it fell silent. At this stage the reporter states material fell away from the underside of it. This material looked like stones, cape weed and cow paddies.

Mr. Blackwell rode onto the spot it had left, and sat there stunned, watching as it left towards the east, gradually it faded away, becoming smaller and smaller in angular size until it was lost to sight. The night was clear, calm and moonlit. In the moonlight he could see a marking, a "ring" of "black" grass, about 30 feet across.

Still stunned, he managed to ride back to the house where he noted the time was 0150 hrs by the bedroom clock. He had a cup of coffee. It was then he noticed his 6-7 year old, water resistant, stainless steel Taiwanese spring wound Timex watch had stopped at 0110 hrs. He took it off his wrist and placed it on the table. After a few minutes it started again. However when he put it on his arm it stopped again within 10 minutes. This sequence of stopping on arm, going on table happened on and off over the next three days then the watch returned to normal. Mr. Blackwell commented that the watch had been reliable before and had been since.

We noted that the watch hour and minute hands were marked by old style luminescent paint and asked if he had noted anything abnormal about the ability to see the watch in the dark. He replied that there had been no noticeable difference before to after the event. Following looking at the watch he went to lie down on his bed without taking off his clothes but was unable to get back to sleep properly, chewing things over in his mind. He noted that his legs were shaky. At about 5 a.m. he arose and decided to return to the paddock where he had observed the object. With daylight he found a ring there standing out quite clearly in the precise spot where the object had been. The surrounding paddock was a blanket of yellow flowers, but on the ground the mark was near black or brown, consisting of grass flattened in an anti-clockwise direction, to a width of 18 inches. Inside the ring remained only green grass. The yellow flowers had been removed. Total diameter of the trace was 28 feet. Evenly spaced within the perimeter of the ring were six "spokes" of relatively undamaged grass. In a definite path leading out of the spot to the east was debris, according to the reporter the debris which he had seen falling from underneath the object. Mr. Blackwell stated that while he was inspecting the mark a truck driver who had stopped his vehicle on the main road came across to him in the paddock. This man related that he had been followed by an object from Traralgon to Rosedale at about 0100 hrs that same morning.

Later that morning, at about 0900 hrs the owner of the property arrived on a regular visit and asked Mr. Blackwell what was wrong with him as he was as white as a sheet. Mr. Blackwell told him that he had something to show him and together they inspected the mark. The owner reported the incident to the local paper and an account appeared on the front page of the "Gippsland Times" of 1 Oct. 80.

Mr. Blackwell relates that he had noted that the 12 foot high by 8 foot wide concrete water tank had been full the day before (29 Sept 80) and held about 10,000 gallons of water which is pumped by wind pump by an incoming $1\frac{1}{2}$ inch pipe. Once full it is used as a summer reservoir, a valve is closed and water bypasses the tank and is pumped (by 1 inch pipe) directly to the area around the house. When it was inspected on the day of the event he states that:

- a) about 10,000 gallons of water had gone, and
- b) in the centre of the tank the muddy residue on the bottom was piled up (the outlet is on the side not in the centre), to a height of perhaps two feet, and
- c) there was algae which had been floating on top of the water level, stuck on the walls near the top hanging downwards. It was estimated that it would take 72 hours or so to empty the tank by normal pipe means.

Another effect was that by lunchtime on the same morning a strip (a chain wide) of grass beneath the path of the object from tree to hayrick and from fence (by the top gate to the paddock where the object had been) to the tank was noticeable. By 1100 hrs the same morning, Mr. Blackwell says he developed a headache which persisted until about 1500 hrs when it went. He said he didn't normally suffer from headaches but that he encountered a sharp constant pain across his forehead above the eyes and also at the top of his head. For the next 7-8 days these headaches came between 1100 and 1500 each day and not even an aspro would clear them up. Also for the 7-8 days after the event he couldn't sleep properly. He would wake up in a sweat. He ate meals in the mornings but experienced vomiting and diarrhea each time. Evening meals caused no problems. He did not seek medical advice. On the 7th or 8th night he had a vivid dream of seeing the object again and of holding an old fashioned shotgun. He awoke from the dream with a start and from about this time onwards recovered normal health. Immediately on awakening he noted the bellowing of cattle and the sound of a horse racing around. Upon viewing from outside he noticed cattle up one corner of an adjacent paddock and a horse running anti-clockwise around in a small paddock at the back of the house.

Later, as mentioned, he found one cow hiding under a shed. Cattle were still being rounded up to the east at the end of the large paddock up to a week later. Mr. Blackwell also maintained that the stock would not go near the mark. Following the discovery of the mark, many people inspected it, including one inspection about two weeks later by Paul Norman (VUFORS (2)) vice-president and MUFON state representative for Victoria, and his VUFORS associate Pat Gildea.

It is hoped a detailed report of their inquiries will be available shortly. A short report on their investigations was published in the December 80 issue of the VUFORS Bulletin. The authors, together with Garry Little of Melbourne conducted an on-site investigation during December 80. Although he had received visits from all sorts of people, Mr. Blackwell provided an indepth report of his experience and a six hour interview and inspection ensued. The party went through the event step by step and inspected the marking. When viewed three months after the event, there was present, a vaguely defined area of bare earth/grass of approximately 28 feet across. The paddock vegetation had been cut and new clover growth was regrowing in places in the paddock, but only in one corner of the marking. Soil and rock samples were taken for analysis. The owner of the property was talked to, and copies of relevant local papers were obtained. Inquiries are at hand to locate a possible GTV 9 news report film of the mark taken within five days, the truck driver, accurate weather details for the time and to ascertain any abnormalities in the soil.

In total, the event includes many extraordinary elements, including a one-witness close encounter, a UFO - apparently correlated physical ground trace, effects on the reporter, and his watch, other trace effects, effect on stock, the disappearance of 10,000 gallons of water from a tank, and possibly a secondary reporter.

Further ostensibly unusual events have been reported or have come to light in the Gippsland area of Victoria, in the few months that followed the event. These included further reports of "ground traces", UFO reports and water losses. It will be some time before the status of these events can be finally established. A fuller report will be published as a Centre document in due course.

NOTES:

- (1) Mr. Blackwell gave all his estimates in the imperial system and they have been left there for accuracy.
- (2) VUFORS - Victorian UFO Research Society, P.O. Box 43 Moorabbin VIC 3189.
- (3) The Australian Centre For UFO Studies - P.O. Box 546 Gosford NSW 2250.

America's "Sonic Boom" Mystery of 1977-1978.

by John Prytz.

Sonic booms are related to UFOs only in so far as the former have been in general absent as a reported associated phenomena during UFO sightings. As has been often pointed out, the two should share an intimate connection. The basic reasoning is that UFOs have often been tracked, visually and on radar, travelling at velocities in excess of Mach 1 (the speed of sound in air).

The following "sonic boom" story, while not connected with UFOs, except perhaps in a very vague sort of way, is never-the-less interesting in its own right. The possibility remains of course that UFOs really are implicated, though it is highly doubtful that that can ever be proven.

It all began, more or less, the press reported, on 2 December 1977 when mysterious atmospheric blasts were heard, recorded (on microbarographs), and reported up and down the American Eastern Seaboard. Specifically, the blasts were noted by residents along the coast from New Jersey to the Carolinas, with some as far north as Nova Scotia, Canada.

The basic facts relating to the phenomena were threefold. They were strong, originating at least tens of miles offshore and atmospheric at altitudes of tens of thousands of feet.

The first and most obvious explanation put forth was that of sonic booms from aircraft, either military or the civilian Concorde, which had started a trans-Atlantic service several weeks prior. However, according to Dr. William L. Donn of Columbia University's Lamont-Doherty Geological Observatory, the pattern or "signature" of the offshore blasts bore no resemblance to either supersonic aircraft or (as some suggested) nuclear explosions. The effect could hardly be reproduced by even a whole formation of supersonic planes breaking the sound barrier simultaneously, he said, far less being produced by a single aircraft.

The blasts were just too strong to be generated by such a source(s). The blast phenomena were likened to a loud clap of thunder or the discharge of eight-inch naval guns and which rattled windows and doors not to mention the population at large. The blasts were connected at some times and in some places to lights and flashes in the sky, but these were never authenticated.

Denials of responsibility quickly came in from the Federal Aviation Administration (FAA) which had the duty to monitor the noise levels from the Concorde, the United States Navy and the Pentagon. Accidental explosions were deemed unlikely in view of the repeated occurrences as were unusual meteor activity. No unusual space activity (re-entries or satellites or space debris) were reported or recorded by NORAD (the North American Air Defence Command).

Dr. Edward Chiburis of the Western Observatory of Boston College said that some of the blasts went back to the previous July (1977) and that they were definitely not natural phenomena. Though he concluded they must be sonic booms, he admitted reports of similar cases occurring over a century ago which obviously could not have been supersonic aircraft.

Mysterious booms have been heard since historical times. Sailors on the North Atlantic have often reported booming noises and have considered them harbingers of good weather. The "Seneca Guns" (after Lake Seneca, New York) is another historical boom mystery. Another historical case in point are the "Barisal Guns" reported off the delta of the Ganges River, made famous by Sir George H. Darwin, son of Charles Darwin. The famous American Louis and Clark expeditions recorded similar phenomena near what is today Great Falls, Montana (famous in UFO lore as the site of one of the rare takings of UFO motion pictures), in 1808. The American Indians have also recorded the "Moodus sounds" in Connecticut. The list goes on and on.

With sonic booms (moving back to the present) apparently ruled out as a viable explanation in the early analysis, Dr. Thomas Gold, Director of Cornell University's Centre for Radio Physics & Space Research (Ithaca, New York) suggested that the blasts were really explosions of huge methane (CH_4 often called... wait for it... "swamp gas"!) gas bubbles erupting through geologic faults in the sea bed and igniting. Though not as geologically unstable as the American Western Seaboard, the Eastern Seaboard as known the occasional earthquake. Left unexplained was how such a gas bubble could be ignited high up in the atmosphere since a near surface explosion was not on as no seismic water waves were ever reported or recorded either visually or through automatic equipment. However, as support for his theory he cited the reports of flashes (lights) seen at times in association with the bangs.

And all the while the mystery booms were continuing.

The American Naval Research Laboratory (NRL) was then given the task of carrying out a "measured and prudent" inquiry into the phenomena.

As the new year (1978) progressed, a series of new and even stronger booms rocked the Carolinas on 12 January. These were strong enough to rattle buildings and shake windows out of their frames. No death or injury was reported however. Some suggested that as strange noises have been associated with the oncoming of an earthquake in the past, that the area was about to be subjected to a series of earth tremors and/or quakes. However, no such seismic activity was recorded then, nor in fact to date.

At about this same time (January 1978), the NRL stated that "at this early stage of the investigation it is not possible to speculate on the source of the phenomena", though others had a field day. It was back to the aircraft sonic boom theories, though some went on record as stating that while sonic booms (from aircraft) might explain one or two of the reported events, it was unlikely to account for all of the noises recorded in the past weeks.

This didn't impress the NRL when they issued their final report. They concluded that the phenomena was due to a strange atmospheric effect caused by sonic booms of military aircraft flying off the coast in combination with extreme cold weather conditions. Atmospheric refraction phenomena located these military aircraft much further off the coast than would have otherwise been expected or possible. The range was from 100-200 miles out, not tens of miles. This explains the initial Defence Department rejection of the military aircraft theory which knew it had no aircraft that close inshore flying at such speeds. Admittedly, there were military aircraft (Marine jets) much further off the coast

practicing during those winter months.

However, that wasn't the end of the matter. In fact the picture gets not only more interesting, but more complicated too! Taking immediate exception to the NRL explanation was Dr. Jeremy J. Stone, Director of the Federation of American Scientists, who instead linked the booms (which he called "superbooms") to flights by the British-French supersonic Concorde which had started coming into New York's J.F.Kennedy International Airport on 22 Nov. 1977. He found that the correlations in times were close enough to suggest this. The reasons for the "superbooms" had to do with the aircraft turning toward their descent flight pathway into Kennedy, which started just south of Cape Sable, Nova Scotia. The shock waves generated from the one course joined that from the new course to produce the "superbooms".

The NRL reiterated that though some sonic booms were reported off Nova Scotia, most were farther down the coast, and that these were the cause of the military. This is not to forget that the Carolina noises seemed to occur regularly before Concorde landings in the U.S. started. NRL also rejected the Stone theory of Concorde-caused because they found that the Concorde scheduled arrival and departure times (which of course could differ from the actual times) did not correlate with the booms south of Nova Scotia and because few booms were reported on Sundays when the Concorde was flying.

Both Dr. Stone and the NRL took exception to the methane bubble theory of Dr. Gold, and other natural causes because the booms came during weekday working hours. One NRL spokesman quipped: "We decided that if it is nature, or God, causing these things, he must be a civil servant working on Eastern Daylight time."

And Dr. Donn took everybody to task! He questioned the "superboom" conclusion as up to five booms have been reported in one day, far far south (off Charleston, South Carolina on 15 December 1977) of Cape Sable, Nova Scotia. The cause of the booms were "unequivocally not the Concorde" nor in fact "weather-enhanced military booms." They were either "direct booms from close-in planes in a series of exercises" (which both the FAA and Pentagon deny) or "something entirely different". Official logs of military aircraft supersonic maneuvers do not coincide with the reported booms. Also, there was no unusual weather, particularly in December.

Thus, the mystery, which started in December of 1977 with bafflement and a dearth of plausible explanations, now (as then) seems to have a plethora of them, but without resolution. In fact, one could say the theories are "booming!"

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Evaluating UFO Reports.

by Mark Moravec.

How good is a UFO report? Is there sufficient evidence to confirm it? Is it worthy of our further attention? To answer these questions in a way unaffected by an individual investigator's bias, we need to devise a uniform system of evaluating UFO reports. To be useful, the evaluation system needs to cover as many important criteria as possible, and yet be simple to apply. This paper presents one system of evaluating UFO reports.

Over the last decade, many evaluation systems have been proposed ranging from Hynek's (1974) strangeness-probability classification to UFOIN's modified strangeness-investigation level classification (Randles, 1978). Each system has its limitations but we must also admit that there is no such thing as a "perfect" system. However, a good system is one that is more than a logical exercise; that does not violently clash with our own subjective (but carefully considered) comparisons of cases; and is simple and practical to use. At the basic level, we need to know what is a "good" report and what is a "poor" report. The concept of UFO cases of "limited merit" versus cases of "high merit" (as used by Allan Hendry at the Centre for UFO Studies, USA) is useful for a broad separation of reports. It is the high merit cases which are worthy of further study and are most likely to give us a clue to the nature and origin(s) of the UFO phenomena. The problem then becomes one of devising criteria to define "limited merit" and "high merit" cases.

At a more detailed level, a system can be developed to take into account many diverse factors or criteria which are considered important when comparing UFO reports. Numerical weights can then be attached to different levels of these criteria in order to produce a system whereby UFO reports can be objectively compared. The individual factor weightings can then be combined to give numerical totals. A point in the range of possible totals could be defined as the dividing line between UFO reports of "limited" and "high" merit.

An evaluation system based on evidence-strangeness criteria is presented below:
The Evidence-Strangeness Evaluation System for UFO Reports

Evidence Scale (E) Consists of two sub-scales:

Level of Documentation (D)

- 0= Anecdote or unconfirmed media account.
- 1= Report form or witness statement.
- 2= Brief witness interview by qualified investigator.
- 3= Detailed on-site investigation by qualified investigator.
- 4= Detailed investigation supported by low-weight physical evidence.
- 5= Detailed investigation supported by high-weight physical evidence.

Witness Credibility (W)

- 0= Single witness with low or unknown credibility
- 1= Multiple witnesses with low or unknown credibility.
- 2= Single witness with high credibility.
- 3= Multiple witnesses with high credibility.
- 4= Multiple independent witnesses known to each other.
- 5= Multiple witnesses (independent) not known to each other.

$$E = D + W \quad (E: 0 \leq E \leq 10)$$

Strangeness Scale (S)

- 0= Identified or Probable identified.
- 1= Possible identified or Not enough information.
- 2= Nocturnal light (NL)
- 3= Daylight object (DO)
- 4= Radar Only or Photographic only.
- 5= Radar/Visual or Photographic/Visual.
- 6= Close Encounter of the first Kind (CE1)

- 7= Close Encounter of the Second Kind (CE2) involving physiological or electromagnetic effects.
 8= Close Encounter of the Second Kind (CE2) involving ground traces or artifacts.
 9= Close Encounter of the Third Kind (CE3)
 10=Close encounter involving contact, abduction, paranormal or other exotic events.

$$(S: 0 \leq S \leq 10)$$

$$ES = (D + W) S \quad (ES: 0 \leq ES \leq 100)$$

Limited merit reports: $ES \leq 25$

High Merit reports: $ES \geq 25$

Examples

Taolito Point (1976) - $ES = (4+3) 5 = 35$
 Orange (1977) - $ES = (4+3) 8 = 56$
 Bakers Creek (1978) - $ES = (3+2) 6 = 30$
 Bass Strait (1978) - $ES = (1+0) 6 = 6$
 Kaikoura NZ (1978) - $ES = (4+3) 5 = 35$

The evidence scale considers the following factors: quality of investigation, physical evidence, number of witnesses and witness credibility. The strangeness scale considers case explicability and type of experience.

Last November, at UFOCON 5, discussion ensued on the evaluation systems presented by Michael Hough and myself. It was suggested that multiplying the evidence and strangeness totals together would give a more meaningful figure than if addition were contemplated. The effect would be to give low ES totals to cases which rated low on evidence and/or strangeness. High ES totals would result only in cases which rated high on both evidence and strangeness. This suggestion has been incorporated in the above system.

The strangeness scale was criticised for not taking into account how explicable the case is irrespective of the types of experiences reported. However, the scale as presented above does take into account the explicability of the case. For example, a CE3 report which is a hoax would automatically be assigned a strangeness rating of zero (i.e. "Identified or Probable identified"). Consequently, the overall ES rating of the report would also be zero.

Another criticism of the strangeness scale was that the type of experience reported (which the strangeness scale differentiates) is irrelevant to the overall strangeness of a case. Thus a nocturnal light report could conceivably contain features more challenging to the analyst than a CE3. It is true that the scale presented does not allow for variations of strangeness within a single category of report, e.g. close encounter of the first kind. This is one of the limitations of the system. However, I would argue that we should differentiate UFO reports in terms of the types of experiences reported, at least at the very broad level of nocturnal lights versus close encounters. A detailed on-site investigation of a featureless light-in-the-sky seen by multiple independent witnesses of high credibility will rate highly on the evidence scale (and thus give us a high degree of confidence that the event as reported actually occurred.), but it is unlikely to tell us much about the nature of the UFO phenomena (because of the remoteness of the stimulus and the consequent lack of details to work on). If the light in question turns out to be the planet Venus, we have a well-documented observation of an astronomical object but no new knowledge of unidentified flying objects.

Thus reports involving objects observed at close range should be given greater weight (as is done in the strangeness scale).

Similarly, close encounter reports involving gross effects on the physical (CE2) or witness (CE3) environments should be given greater weight (as is also done in the strangeness scale). Finally the rationale for attaching the highest strangeness ratings to CE3 and other highly exotic reports (e.g. abductions or paranormal events) is that these reports are the most difficult to explain if

they occurred as reported. The possibility that such reports did not occur as reported is taken care of by eliminating cases (i.e. by assigning a strangeness rating of zero) and by looking at the strength of any supporting evidence (i.e. by assigning a low rating on the evidence scale if there is inadequate documentation, low witness credibility, and/or no physical evidence.

The final test for an evaluation system is to determine whether it works logically and practically when sample reports are weighted according to the system. The system presented here is a modification of an earlier system which was tested by applying it to several dozen reports varying widely in supportive evidence and strangeness. Little-used categories were eliminated and some categories were re-defined or added where necessary.

Discussion of this and alternative evaluation systems is welcomed. Only after wide discussion can ACUFOS be confident of adopting a system acceptable to the majority of researchers. Whichever system of evaluation is ultimately deemed to be adequate for our purposes as UFO investigators and researchers, it needs to be uniformly adopted so that all reports can be evaluated and compared irrespective of their origin.

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Historical Reports in Australia. (Part I)

by Bill Chalker.

The UFO phenomena has been widely popularised as a purely contemporary manifestation, confined to the last few decades. Researchers have been shown that this is not the case and that phenomena that may be appearances of the mystery that plagues us now, has been reported by man throughout recorded history. Such is the case with the oldest continent on earth. Accounts of strange aerial mysteries span the entire history of white settlement of Australia. The legends and lore of the indigenous aborigines also provides material suggestive of interactions with anomalistic aerial phenomena, but of course in speculation about such data, it should be realised that the accounts are of a historical and anthropological nature and therefore care should be taken not to interpolate too much into them.

Aboriginal myths incorporate the idea of "sky-beings", with the Wandjina being perhaps the most interesting from our point of view. While the Wandjina paintings of the Kimberleys have received all manner of interpretations, it is fascinating to see that the indigenous tribes viewed the Wandjina as "the spirit in the cloud". Indeed, the unique painting style shows a logical sequence from human figures to stylised representations of clouds. This duality of anthropomorphic form and "clouds" is widespread in primitive cultures and finds an arresting parallel in the biblical accounts, particularly in "Exodus". There-in the "pillar of fire by night" and "the cloud by day" was given to alighting on the ground, and according to the St. James rendering of "Exodus" 33, 9-11 we find: "...as Moses entered into the tabernacle, the cloudy pillar descended, and stood at the door of the tabernacle.... And the Lord spoke unto Moses face to face, as a man speak unto his friends." While this line of thought is suggestive of superior "sky beings" acting as cultural catalysts for primitive societies. I should point out that making mythological component comparisons, can make for interesting exercises, full of emotive similarities, but are purely speculative, and should not be regarded as anything more (1).

The aboriginal shamanistic "experience of death and rising again" in the initiation of tribal "men of high degree" finds some fascinating parallels with modern-day "UFO contactee" lore. In these situations, a tribesman is set upon by "spirits" and is "killed" - ritualistically disembowelled. He is then "restored to life" and informed of his new standing as a tribal "medicine man".

...so schooled in skills befitting a shaman. While such accounts are widespread and show wide variety, the following recorded by Spencer and Gillen is germane to our area of enquiry: "Then (munkaninji - a "spirit") took (Kurkutji) away up into the sky (after the experience of "death and rising again") and brought him down to earth close to his own camp, where he heard the natives mourning for him, thinking that he was dead. For a long time, he remained in a more or less dazed condition, but gradually he recovered and the natives knew that he had been made into a medicine-man". (2)

The Bad Aboriginal tribe of the West Kimberleys have a fascinating "sky being" lore. They reverse a supreme being called Djamar. In aboriginal lore the sound of the "bullroarer" - a roaring wind noise - symbolises the approach of the god. The original accounts indicate that Djamar's bullroar or "galuguru" are representations of the "being" itself, thus when the tribal elders led the young initiates to a stony bed of a creek and show the holes where Djamar had implanted his "galuguru", we have the suggestion that whatever appearance or manifestation the sky - being took it left behind a physical trace of its presence. Eliade quotes E. A. Worms when he indicates: "Earnestly the old men impress on the youths the terrible force of the original "tjurunga" (the original manifestation of Djamar), by pointing out the baldness of the surrounding hills and the damaged bark of the trees struck by Djamar when he whirled the bull-roar. It smashed the rocks of the fore shore". After the manifestation of Djamar, which left behind all this damage, the supreme being, Djamar ascended once again into the sky with his "tjurunga". (3)

With the advent of white colonisation, documented accounts appeared with some frequency. Because of the number involved, only a selection has been included here. They certainly demonstrate that UFO sightings have been around for quite a long time. (4)

One of the earliest accounts so far uncovered, is germane to the world-wide phenomenon of "ghost-lights" - those elusive "will o' the wisps". T. Horton James in "Six Months in South Australia & C." (London, 1838) recounted how he and a party of travellers in the Owen River region of eastern Victoria (then known as part of the Port Phillip district) "saw a fire a little way off". Apart from a possible natural explanation, the very remote locality made the party speculate that "it must be either bushrangers (Australian equivalent to "highway-men" or "outlaws" - W.C.C.) or travellers" like themselves. Although the hour was late, one of the travellers saddled up a horse and with his servant rode out to investigate. "The writer was recommended not to go to sleep, but to smoke another cigar, as they would be back directly. But it was about three hours, before they returned, and had seen neither fire, bushrangers, nor travellers. They rode boldly up to the spot where the fire, as they thought, was burning, but it was as far off as when they started. In short; it turned out to be an "ignis fatuus", or jack-a-lantern (sic?), and kept them upwards of a hour trotting in vain pursuit, 'till by some sudden flickering and paleness, it confirmed them in its unsubstantial nature, and they returned rather mortified to bed..." (5)

Coopers Creek in central Australia bore witness to another more substantial aerial "vision". The account comes from the journal of William J. Wills, who with R. O'Hara Burke, perished at the end of an epic trek through the centre of Australia. Wills' diary places the incident around June 23rd, 1861. He wrote: "Near daybreak, King reported seeing a moon in the east, with a haze of light stretching up from it; he declared it to be quite as large as the moon, and not dim at the edges. I am so weak that any attempt to get a sight of it was out of the question; but I think it must have been Venus in the zodiacal light he saw, with a corona around her." Whatever it was, it certainly did not appear to be Venus. Within a few days, both Burke and Wills were dead, and the lone survivor of the tragic expedition John King returned with a search party soon after to give both men proper burial and to recover the written documents kept by Wills. Without these the expedition's confrontation with the wilds of central Australia and the "vision" of King may never have been detailed. (6)

UFOFOS BIBLIOGRAPHY SERVICE: Tunguska, Siberia (1908)by John Prytz.

Compiler's Note: On June 30, 1908, something exploded on or above the remote Siberian region of Tunguska. What the "something" was has never been resolved to the satisfaction of all scientists. The "Tunguska Event" has been suggested as being caused by an ordinary meteor, a comet, a hunk of anti-matter, a mini black hole and a nuclear explosion via an extraterrestrial spaceship which malfunctioned. It is of course the latter which would be of interest to most ufologists. What the "Tunguska Event" was, or was not, is still in a state of flux. That is obvious enough just from scanning the titles of the following bibliography presented below. The data base are articles/books in English and of reasonable availability in Australia. The Compiler makes no pretense of this being an exhaustive bibliography on the subject.

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